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AIR OPERATING PERMIT

In compliance with the provisions of The State of Washington
Clean Air Act Chapter 70.94 Revised Code of Washington

Vanalco, Inc.
5701 NW Lower River Road
P.O. Box 9805
Vancouver, WA 98660

is authorized to operate in accordance
with the terms and conditions
of this permit.

Issued by:

State of Washington
DEPARTMENT OF ECOLOGY
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SECTION I: INTRODUCTION AND LEGAL AUTHORITY

This Air Operating Permit is issued under the procedures established in the Operating Permit Regulation, Chapter 173-401 WAC (Washington Administrative Code). The provisions of this permit describe the emissions limitations, operating requirements, emission monitoring, record keeping requirements, and reporting frequencies for the permitted source. Terms used in this permit have the meaning assigned to them in the referenced regulations.

Vanalco, Inc. requires a Chapter 173-401 WAC Air Operating Permit because it emits, or has the potential to emit, one hundred tons per year or more of one or more air pollutants (WAC 173-401-300(1)).

All terms and conditions, except state-only requirements, are enforceable under the Federal Clean Air Act (FCAA).

SECTION II: SPECIFIC TERMS AND CONDITIONS OF THE PERMIT

The permittee is subject to the respective requirements in each of the tables for the specific processes (pages 10 through 21) plus all the facility-wide generally applicable requirements (pages 5 through 9). Insignificant emission units (IEUs) and activities are subject to the applicable requirements contained in the facility-wide generally applicable requirements, however, they are not subject to testing, monitoring, recordkeeping, reporting and certification requirements unless the generally applicable requirements in the State Implementation Plan (SIP) impose them [WAC 173-401-530(2)(c)].

Facility-wide Generally Applicable Requirements:

The applicable requirements, test methods, and associated monitoring, recordkeeping and reporting requirements in the “Facility-wide Generally Applicable Requirements” table (pages 5 through 9) apply facility-wide, unless a more specific or more restrictive condition is included elsewhere. The reference test method for emission standards is the test method identified in the monitoring requirement unless otherwise indicated.

Specific Processes:

The emission units identified in the tables on pages 10 through 21 are subject to specific requirements in addition to the generally applicable requirements on pages 5 through 9.

Language in the columns titled “Pollutant/Parameter” and “Description of the Requirement” is descriptive and for informational purposes only and is not intended in any way to alter or change the meaning of any applicable requirement outlined in the other columns. In the event of conflict or omission between information contained in the table and the actual statute, regulation, or order cited, the requirements and language of the actual statute, regulation or order cited shall govern.

In column 2, when more than one citation is listed for a permit condition and one is more stringent than or more specific than the other(s) or takes precedence, the more stringent, specific, or preceding citation (typed in larger print) is listed first. Less-stringent/specific or preceded citations are typed below (typed in smaller, italicized font) and are still applicable requirements.

II.1 Facility-Wide Generally Applicable Requirements

Condition Number	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Monitoring	Monitoring Frequency and Timing
1.1.	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91] WAC 173-400-040(1)		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60 minute period.	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96). Comply with condition 1.25.	Upon request by Ecology. See process tables for specific monitoring requirements. Comply with condition 1.25.
1.2.	WAC 173-400-040 (2) [effective 3/22/91; not submitted for SIP approval]	X	Fallout	Permittee shall not cause or permit the emission of particulate matter from any source deposited beyond the property under direct control of the permittee in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited.	Maintain a record of complaints, complaint responses, and procedures followed to validate complaint and eliminate or reduce the emissions causing the fallout so as to comply with the requirement. Identify in the records when corrective action was completed and compliance achieved.	Record complaints upon receipt, initiate complaint validation and response as soon as practicable, record complaint response actions taken, notify Ecology at first opportunity during normal office hours of any problem not corrected within 24 hours of discovery, and record date and time of any notification to Ecology.
1.3.	WAC 173-415-030 (4) [effective 3/22/91; approved into the SIP on 2/19/91] WAC 173-400-040-(3) WAC 173-401-605(1) and -600(2) (gapfilling)		Fugitive emissions	Use reasonable available control technology to prevent fugitive emissions.	Comply with condition 1.25.	Comply with condition 1.25.
1.4.	WAC 173-400-040 (4) [3/22/91; not submitted for SIP approval]	X	Odor	Permittee must use recognized good practice and procedures to reduce, to a reasonable minimum, odors which unreasonably interfere with any other property owner's use and enjoyment of his property.	Maintain a record of complaints, complaint responses, and procedures followed to validate complaint and eliminate or reduce the emissions causing the odor so as to comply with the requirement. Identify in the records when corrective action was completed and compliance achieved.	Record complaints upon receipt, initiate complaint validation and response as soon as practicable, record complaint response actions taken, notify Ecology at first opportunity during normal office hours of any problem not corrected within 24 hours of discovery, and record date and time of any notification to Ecology.
1.5.	WAC 173-400-040 (5) [3/22/91; approved into the SIP on 8/20/93]		Emissions Detrimental to Persons or Property	Permittee shall not cause or permit emissions of any contaminant if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.	Maintain a record of complaints, complaint responses, and procedures followed to validate complaint and eliminate or reduce these emissions so as to comply with the requirement. Identify in the records when the emissions were eliminated.	Record complaints upon receipt, initiate complaint validation and response as soon as practicable, record complaint response actions taken, notify Ecology at first opportunity during normal office hours of any problem not corrected within 24 hours of discovery, and record date and time of any notification to Ecology.

II.1 Facility-Wide Generally Applicable Requirements (continued)						
Condition Number	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Monitoring	Monitoring Frequency and Timing
1.6.	WAC 173-415-030 (5) (a) [3/22/91; approved into the SIP on 2/19/91]		SO ₂	Must not exceed a monthly maximum of 60 lbs of SO ₂ per ton of Al produced/month	EPA Method 6, 6A, 6B, 6C or 8 (40 CFR Part 60, Appendix A, 7/1/96) as applicable to the source.	At the permittee's option, quarterly as a substitute for mass balance, or upon Ecology's request.
					Permittee must submit a mass balance calculation of SO ₂ emissions (making the assumption that all sulfur converts to SO ₂), using a representative aluminum production rate for the period of concern, and using a sulfur content representative of all raw materials consumed during the period of concern. The submission must include records of raw material usage, representative raw material sulfur analysis, and aluminum production rate. SO ₂ /ton Al shall be calculated monthly using the following equation: $\text{SO}_2/\text{ton Al} = (\Sigma \text{C} \times \text{S}_\text{C} + \Sigma \text{P} \times \text{S}_\text{P} + \Sigma \text{O} \times \text{S}_\text{O}) \times 40 / \text{Al}$ where C, P, and O are the coke, pitch, and fuel oil usage during the month from each shipment, in tons; S _C , S _P , and S _O are the sulfur concentration of each shipment of coke, pitch or fuel oil respectively, expressed as a percentage; and Al is the aluminum production for the month in tons.	Calculate monthly. Submit reports quarterly.
1.7.	WAC 173-415-030 (5) (b) WAC 173-400-040(6) [3/22/91; approved into the SIP on 2/19/91]		SO ₂	Must not exceed an average concentration of 1000 ppm of SO ₂ in any 60-minute period.	Conduct a compliance test using EPA Method 6, 6A, 6B, 6C, or 8 (40 CFR Part 60, Appendix A, 7/1/96) as applicable to the source.	Upon Ecology's request.
1.8.	WAC 173-400-040(8)(b) [effective 3/22/91; approved into the SIP on 8/20/93] WAC 173-401-605(1) and -600(2) (gapfilling)		Fugitive dust	Must take reasonable precautions to prevent fugitive dust from becoming airborne.	Comply with condition 1.25.	Comply with condition 1.25.
1.9.	WAC 173-400-050(1) [effective 3/22/91; approved into the SIP on 8/20/93]		PM	Combustion units must not exceed 0.1 grains/dscf.	EPA Method 5 or 5D, or Method 301-validated methods (40 CFR Part 60, Appendix A, 7/1/96).	Upon request by Ecology.
1.10.	WAC 173-400-060 [effective 3/22/91; approved into the SIP on 8/20/93]		PM	Must not exceed 0.1 grains/dscf.	EPA Method 5, 5D, 17, or 315, or Method 301-validated methods (40 CFR Part 60, Appendix A, 7/1/96, 40CFR Part 63, Appendix A, 10/7/97), as applicable to the source.	Upon request by Ecology. See Tables II-2 through II-7 for specific monitoring requirements.

II.1 Facility-Wide Generally Applicable Requirements (continued)						
Condition Number	Applicable Requirement	State Only	Pollutant/Parameter	Description of Requirement	Monitoring	Monitoring Frequency and Timing
1.11.	Order No. DE 98-AQI065 <i>WAC 173-415-030 (1)(a) [effective 3/22/91; not submitted for SIP approval]</i> <i>WAC 173-481-150</i>	X	Fluoride	Must restrict fluoride emissions to not cause ambient and forage standards in Chapter 173-481 to be exceeded.	Survey potential forage sites in NW quadrant to a 1 mile radius. Conduct forage sampling and monitoring at sites having potential for forage grazing. Cut forage back to no less than 2" height; bag and label; log information. Follow ASTM D3269-96. Washing forage is not allowed. Sample and monitor any newly identified sites.	Survey annually, before growing season. Submit survey to Ecology by March 31 of each year. Sample monthly from March 1 to October 31. Submit results of monitoring within 30 days of the end of each calendar month. Immediately upon identifying new forage sites not identified in annual survey.
1.12.	Order No. DE 98-AQI065 <i>WAC 173-415-060 (1) (a), (b), (d), and (e) [effective 3/22/91; not submitted for SIP approval]</i> <i>WAC 173-481-150</i>	X	Fluoride	Must conduct routine monitoring in accordance with an approved program.	Comply with monitoring requirements of condition 1.11	Comply with frequency and timing requirements of condition 1.11
1.13.	Order No. DE 98-AQI065 <i>WAC 173-481-100 (1) [effective 9/16/87; not submitted for SIP approval]</i>	X	Fluoride	Must comply with the sampling requirements designed to be consistent with protecting livestock and vegetation.	Comply with monitoring requirements of condition 1.11	Comply with frequency and timing requirements of condition 1.11
1.14.	WAC 173-481-100 (2)(a) [effective 9/16/87; not submitted for SIP approval]	X	Fluoride	The fluoride ion content of forage, calculated by dry weight, must not exceed 40 ppm average for 12 consecutive months.	Comply with monitoring requirements of condition 1.11	Comply with frequency and timing requirements of condition 1.11
1.15.	WAC 173-481-100 (2)(b) [effective 9/16/87; not submitted for SIP approval]	X	Fluoride	The fluoride ion content of forage, calculated by dry weight, must not exceed 60 ppm for each month for more than 2 consecutive months.	Comply with monitoring requirements of condition 1.11	Comply with frequency and timing requirements of condition 1.11
1.16.	WAC 173-481-100 (2)(c) [effective 9/16/87; not submitted for SIP approval]	X	Fluoride	The fluoride ion content of forage, calculated by dry weight, must not exceed 80 ppm more than once in any 2 consecutive months.	Comply with monitoring requirements of condition 1.11	Comply with frequency and timing requirements of condition 1.11

II.1 Facility-Wide Generally Applicable Requirements (continued)						
Condition Number	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Monitoring	Monitoring Frequency and Timing
1.17.	WAC 173-481-100(3) [effective 9/16/87; not submitted for SIP approval]	X	Fluoride	In areas where cattle are not grazed continually, but are fed cured forage part of the year, the fluoride content of the cured forage shall be used as the forage fluoride content for as many months as it is fed to establish the yearly average.	Comply with monitoring requirements of condition 1.11	Comply with frequency and timing requirements of condition 1.11
1.18.	WAC 173-481-100(4) [effective 9/16/87; not submitted for SIP approval]	X	Fluoride	Cured forage grown for sale as livestock feed shall not exceed 40 parts per million fluoride ion (40 ppm fluoride ion) by dry weight after curing or preparing for sale.	Comply with monitoring requirements of condition 1.11	Comply with frequency and timing requirements of condition 1.11
1.19.	WAC 173-481-110 (1) [effective 9/16/87; not submitted for SIP approval]	X	Gaseous Fluorides in the Ambient Air	Must comply with the sampling requirements designed to be consistent with protecting livestock and vegetation.	No monitoring required per Order 98AQI065	N/A
1.20.	WAC 173-481-110 (2)(a) [effective 9/16/87; not submitted for SIP approval]	X	Gaseous Fluorides in the Ambient Air	Gaseous fluorides in the ambient air calculated as HF at standard conditions must not exceed 3.7 ug/m ³ average for any 12 consecutive hours.	No monitoring required per Order 98AQI065	N/A
1.21.	WAC 173-481-110 (2)(b) [effective 9/16/87; not submitted for SIP approval]	X	Gaseous Fluorides in the Ambient Air	Gaseous fluorides in the ambient air calculated as HF at standard conditions must not exceed 2.9 ug/m ³ average for any 24 consecutive hours.	No monitoring required per Order 98AQI065	N/A
1.22.	WAC 173-481-110 (2)(c) [effective 9/16/87; not submitted for SIP approval]	X	Gaseous Fluorides in the Ambient Air	Gaseous fluorides in the ambient air calculated as HF at standard conditions must not exceed 1.7 ug/m ³ average for any consecutive 7 days.	No monitoring required per Order 98AQI065	N/A
1.23.	WAC 173-481-110 (2)(d) [effective 9/16/87; not submitted for SIP approval]	X	Gaseous Fluorides in the Ambient Air	Gaseous fluorides in the ambient air calculated as HF at standard conditions must not exceed 0.84 ug/m ³ average for any consecutive 30 days.	No monitoring required per Order 98AQI065	N/A
1.24.	WAC 173-481-110 (2)(e) [effective 9/16/87; not submitted for SIP approval]	X	Gaseous Fluorides in the Ambient Air	Gaseous fluorides in the ambient air calculated as HF at standard conditions must not exceed 0.5 ug/m ³ average from March 1 through October 31 of any year.	No monitoring required per Order 98AQI065	N/A

II.1 Facility-Wide Generally Applicable Requirements (continued)						
Condition Number	Applicable Requirement	State Only	Pollutant/Parameter	Description of Requirement	Monitoring	Monitoring Frequency and Timing
1.25.	WAC 173-415-030 (6) [3/22/91; approved into the SIP on 2/19/91]		Operation and Maintenance	<p>Must maintain affected facility and operate and maintain air pollution control equipment consistent w/good air pollution control practice.</p> <p>All problems found during daily inspections or at other times shall be corrected as soon as practicable.</p> <p>For baghouses, differential pressure and a check for visible emissions (non-certified observer) shall be recorded for each day of operation.</p> <p>If a dust collector is found not to be operating properly and corrective action cannot be completed by the operator, a work order for repair shall be created the same day that the problem was identified.</p> <p>Preventive maintenance for electrical and mechanical systems shall be conducted monthly. The results shall be recorded.</p> <p>Dust collectors shall be operating at all times when the emission units they serve are operating except as provided under WAC 173-400-107.</p> <p>Hoods, shields, shrouds and covers shall be in place and/or securely closed on all processes that use such items except as required for normal operation and maintenance.</p> <p>Street sweepers shall be used regularly indoors and outdoors (weather permitting) to limit the accumulation of dust that could become airborne due to vehicle traffic.</p> <p>Materials handling shall be conducted indoors to the extent possible.</p>	<p>Operators shall conduct inspections of each dust collector in their work area to ensure that each system is operating properly.</p> <p>A log of inspections shall be maintained in each work area and shall be available to Ecology inspectors. Time, date and person conducting inspection shall be noted in the log. Any problems noted during the inspection, including abnormal VE, shall be recorded.</p> <p>A log of differential pressures and results of visible emissions checks shall be maintained in the vicinity of the equipment.</p> <p>A record of all work orders written and repairs completed shall be maintained.</p> <p>A log of preventive maintenance performed shall be maintained.</p>	<p>Daily for each day of operation.</p> <p>If corrective actions are not completed within 24 hours of first observation of a problem, notify Ecology at first opportunity during normal office hours.</p>

II.2 Green Carbon

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-111 Dry Coke Scrubber (50,000 cfm) (E-111 is the emission point for Green Mill emission units E-50, E-51, E-52, E-54 and E-108)	Order DE 98-AQI043 I.2. and I.3.		VE	Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	2.1.a.i	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation
				No visible emissions shall be present due to leakage as a result of poor O&M from the process equipment and the air emissions control unit.	2.1.a.ii	Comply with condition 1.25	Comply with condition 1.25
	Order DE 98-AQI043 I.1.A. and I.4.		PM	Must not exceed 2.57 lbs/hr	2.1.b.i	EPA Test Method 315 (40 CFR Part 63, Appendix A, 10/7/97)	Once every year and upon Ecology's request.
					2.1.b.ii	Report emission results to Ecology.	Within 90 days after emission testing.
	Order DE 98-AQI043 I.1.B. and I.4.		POM	Must not exceed 1.03 lbs/hr	2.1.c	EPA Test Method 315 (40CFR Part 63, Appendix A, 10/7/97) Individual PAH species shall be determined from the reconstituted and combined residues using California Air Resources Board Method 429.	Once every year and upon Ecology's request. Report emission results to Ecology within 90 days after emission testing.

II.2 Green Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-111 Dry Coke Scrubber (continued)	Order DE 98-AQI043 I.5.		O&M	The dry coke scrubber O&M manual shall be updated as necessary to include any changes in operation, operating ranges, hooding, collection system, etc., and shall be made available to Ecology. Emissions resulting from failure to follow the manual may be considered proof of improper operation and maintenance.	2.1.d	Comply with conditions 1.25 and 2.4.c.	Comply with conditions 1.25 and 2.4.c.
E-29 Carbon Grinding ESP (Cottrell) 20,000 cfm	WAC 173-400-060 [effective 3/22/91; approved into the SIP on 8/20/93] WAC 173-401-615(1)(b) (periodic monitoring) and -615 (3)(a) (reporting)		PM	Must not exceed 0.1 grains/dscf	2.2.a.i	EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96)	Once every year and upon request by Ecology.
					2.2.a.ii	ESP primary voltage shall be monitored and recorded. The permittee shall post the primary voltage range corresponding to normal operation in close proximity to the equipment. If, during daily checks, voltages outside the posted range are observed, action shall be taken to investigate and correct the problem.	Daily. The permittee shall maintain records onsite and make them available to Ecology on request. The permittee shall submit a semiannual summary. The first summary report shall identify the primary voltage range corresponding to normal operating conditions. The first and all subsequent reports shall include the dates of each excursion outside the normal operating range.
	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91] WAC 173-400-040(1) WAC 173-401-615(1)(b) (periodic monitoring)		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60-minute period.	2.2.b	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96).	Weekly; if 10 consecutive weekly readings are below the 20% limit, required frequency is reduced to monthly. If any reading exceeds the 20% limit, weekly readings shall resume.
E-46 Carbon Plant Storage Bldg. #52 Window Vents	WAC 173-400-060 [effective 3/22/91; approved into the SIP on 8/20/93]		PM	Must not exceed 0.1 grains/dscf	2.3.a	Comply with condition 1.3. EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96)	Comply with condition 1.3. Upon request by Ecology.

II.2 Green Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-46 Carbon Plant Storage Bldg. #52 Window Vents (continued)	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91] WAC 173-400-040(1)		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60 minute period.	2.3.b	Comply with condition 1.3. EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96).	Comply with condition 1.3. Upon request by Ecology
E-111 Paste Plant (Green Mill)	Conditions 2.4.a through 2.4.i incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR63.843(b)		POM	Operate and maintain equipment to capture and control POM emissions	2.4.a	Comply with 2.4.c (monitoring parameters) and 2.4.d (daily inspection)	Ongoing per approved description of monitoring parameters (2.4.c). Daily for inspections
	40CFR63.843(b)(1)		POM	Emission capture system shall be installed and operated to meet minimum exhaust rates published in Chapters 3 and 5 of "Industrial Ventilation: A Handbook of Recommended Practice."	2.4.b	Conduct one study during the permit term to determine actual exhaust rates in relation to required rates, and identifying operational factors affecting exhaust rates.	Conduct the study and submit the results during the first year of the permit.
	40CFR63.848(f) and 40CFR63.847(h)		Parametric monitoring for control devices	Operate, calibrate and maintain a continuous parameter monitoring system including, at a minimum, coke flow and air flow. Average coke feed rate for each operating shift shall be maintained at no less than 2,000 lbs/hour. Average air flow rate for each operating shift shall be maintained at no less than 45,000 acfm	2.4.c	Inspect each control device to ensure the control device is operating properly and record the results of each inspection. Monitor and maintain a log of coke feed and air flow rates.	Daily for each day of operation. The permittee shall maintain records onsite and make them available to Ecology on request. The permittee shall submit a semiannual summary report. The first and all subsequent summary reports shall include the dates of each excursion outside the normal operating ranges and the magnitude of each excursion. The report shall also identify exceedances of any given operating parameter six or more times in any semiannual reporting period
	40CFR63.848(g)		VE	Visually inspect the exhaust stack(s) of each control device for evidence of any VE indicating abnormal operation.	2.4.d	Inspect and record the results. Visual check (Method 9 is not required).	Daily

II.2 Green Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-111 Paste Plant (Green Mill) (continued)	Conditions 2.4.a through 2.4.i incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR63.848(h)		VE and operating parameters	Initiate corrective action per startup, shutdown, malfunction plan within 1 hour if operating parameters outside the limits established under condition 2.4.c are measured or VE indicating abnormal operation are observed during daily inspection.	2.4.e	Per approved parametric monitoring description. See condition 2.4.c. Visual inspection. Comply with 2.4.d. Comply with 2.4.h (startup, shutdown, malfunction plan) Maintain records of all instances of failure to initiate corrective action procedures within 1 hour or to take necessary corrective actions to remedy the problem.	Per approved parametric monitoring description. See condition 2.4.c. Inspect daily Comply with 2.4.h (startup, shutdown, malfunction plan) Notify Ecology of all such instances at first opportunity during normal office hours (see condition 1.25).
	40CFR63.848(i)		Operating parameters	Remain within limits for each operating parameter such that any given limit is not exceeded six or more times in any semiannual reporting period. No more than one exceedance shall be attributed in any given 24-hr. period.	2.4.f	Per approved parametric monitoring description. See condition 2.4.c	Comply with 2.4.c.
	40CFR63.848(k)			All monitoring devices required by conditions 2.4.c through 2.4.g [40CFR63.848] must be certified by the permittee to meet the accuracy requirements and must be calibrated in accordance with manufacturer's instructions.	2.4.g	Submit any changes to recommended accuracy requirements for review and approval.	When any changes are made to monitoring devices affecting their accuracy.

II.2 Green Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-111 Paste Plant (Green Mill) (continued)	Conditions 2.4.a through 2.4.i incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR850(c) and 40CFR 63.6(e)(3)			Implement a startup, shutdown and malfunction plan and corrective action program that satisfies 40CFR63.850(c) and is available for review by the permitting authority on request.	2.4.h		
	40CFR850(e)			Maintain files of all information, reports and notifications required by 40CFR63.10(b) and 40CFR63 Subpart LL in accordance with 40CFR63.850(e).	2.4.i	Maintain Files	For 5 years

II.3 Baked Carbon

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-55. A-446 bake oven scrubber/baghouses 131,000 scfm (nine stacks)	WAC 173-400-050 (1) [effective 3/22/91; approved into the SIP on 8/20/93] WAC 173-401-615(1)(b) (periodic monitoring) and -615 (3)(a) (reporting)		PM	Must not exceed 0.1 grains/dscf	3.1.a.i	EPA Test Method 315 (40 CFR Part 63, Appendix A, 10/7/97)	Test each stack on each operating reactor 3 times each year under full operation. When only one bake furnace is operating, test each stack on each operating reactor annually.
					3.1.a.ii	Comply with condition 1.25	Comply with condition 1.25
	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91] WAC 173-400-040(1) WAC 173-401-615(1)(b) (periodic monitoring)		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60-minute period.	3.1.b	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96).	Weekly; if 10 consecutive weekly readings are below the 20% limit, required frequency is reduced to monthly. If a reading on any reactor unit exceeds the 20% limit, weekly readings on that unit shall resume.

II.3 Baked Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-56. Bake oven roof vents (Buildings 58, 60, and 64)	WAC 173-400-060 [effective 3/22/91; approved into the SIP on 8/20/93]		PM	Must not exceed 0.1 grains/dscf	3.2.a	Submit test plan for approval. The test plan shall include methods and a frequency for testing PM, POM and VE, and for recording operational practices occurring at the time of testing to relate practices to emissions. EPA Test Method 315 (40 CFR Part 63, Appendix A, 10/7/97)	Within 180 days after resuming full operation. According to approved test plan
	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91]		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60-minute period.	3.2.b	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96). Comply with condition 3.2.a	Upon request by Ecology Comply with condition 3.2.a
	WAC 173-400-040(1)						
E-56. Bake #3 packing material baghouse 10,000 cfm (Discharges inside Bldg 64A)	Order No. DE 98-AQI043 VIII.1		PM	Must not exceed 0.01 gr/dscf	3.3.a.i	EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96)	Upon request by Ecology
	WAC 173-401-615(1)(b) (periodic monitoring)				3.3.a.ii	Comply with condition 3.3.b.i	Comply with condition 3.3.b.i
	WAC 173-400-060						
	Order No. DE 98-AQI047 VIII.2.		VE	Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	3.3.b.i	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation
	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91]						
	WAC 173-400-040(1)						

II.3 Baked Carbon (continued)							
Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-56. Bake #3 packing material baghouse (continued)	Order No. DE 98-AQI047 VIII.3. WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91]		VE	No visible emissions shall be present due to leakage as a result of poor O&M from the process equipment and the air emissions control unit.	3.3.b.ii	Comply with condition 1.25	Comply with condition 1.25
	Order No. DE 98-AQI047 VIII.4. WAC 173-401-605(1) and -600(2) (gapfilling)		O&M	O&M manuals for all equipment with potential to affect emissions shall be developed, followed, and available to Ecology. Emissions resulting from failure to follow manuals may be considered proof of improper operation and maintenance.	3.3.c	Comply with condition 1.25	Comply with condition 1.25
Anode Bake Furnaces	Conditions 3.4.a.i through 3.4.i incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR 63.843(c)(1), 847(d), 848(c), 849, 850(a)(5) and b, 40CFR 63.7(b) and (g), and WAC 173-415-060(1)		TF	Must not exceed 0.20 lb/ton of green anode placed in the anode bake furnaces.	3.4.a.i	Conduct source test at the exhaust of each A-446 module using EPA Test Method 13B (40 CFR Part 60, Appendix A, 7/1/96)	Test each stack on each operating reactor 3 times each year under full operation. When only one bake furnace is operating, test each stack on each operating reactor annually.
					3.4.a.ii	Compute and record the annual average of all valid test runs each year to determine compliance, using the equation in 40CFR63.847(e)(4).	Annually. Submit summaries of all performance tests within 30 days of the end of the last month of the reporting period.
					3.4.a.iii	Performance tests must be in accordance with the approved test plan, Subpart A of 40CFR Part 63, and 40CFR63.847.	NA
					3.4.a.iv	Notify Ecology of intention to conduct performance tests.	Submit notification at least 60 days before each test is scheduled to begin. Notify Ecology at least 5 days in advance of any delay in the planned test.

II.3 Baked Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Anode Bake Furnaces (continued)	40CFR 63.843(c)(2) 847(d), 848(c), 850(a)(5) and b, 40CFR 63.7(b) and (g), and WAC 173-415-060(1)		POM	Must not exceed 0.18 lb/ton of green anode placed in the anode bake furnaces.	Conditions 3.4.a.i through 3.4.i incorporate MACT requirements published at FR52384, October 7, 1997.		
					3.4.b.i	Conduct source test at the exhaust of each A-446 module using EPA Method 315 (40 CFR Part 63, Appendix A, 10/7/97)	Test each stack on each operating reactor 3 times each year under full operation. When only one bake furnace is operating, test each stack on each operating reactor annually.
					3.4.b.ii	Compute and record the annual average of all valid test runs each year to determine compliance, using the equation in 40CFR63.847(e)(4)	Annually. Submit summaries of all performance tests within 30 days of the end of the last month of the reporting period.
					3.4.b.iii	Performance tests must be in accordance with the approved test plan, Subpart A of 40CFR Part 63, and 40CFR63.847.	NA
					3.4.b.iv	Notify Ecology of intention to conduct performance tests.	Comply with 3.4.a.iv.

II.3 Baked Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Anode Bake Furnaces (continued)	Conditions 3.4.a.i through 3.4.l incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR63.848(f) and 40CFR63.847(h)			<p>Operate, calibrate and maintain a continuous parameter monitoring system including, at a minimum, alumina flow and air flow.</p> <p>Daily average ore flow into each reactor shall be maintained at no less than 10 tons/day (2.5 tons per day when only one furnace with two fires is operating).</p> <p>Daily average air flow from the baking furnace shall be maintained at no less than 50,000 acfm (12,000acfm when only one furnace with two fires is operating).</p> <p>Submit for approval any proposed changes to the above parameters or operating limits</p>	3.4.c	<p>Inspect each control device to ensure the control device is operating properly and record the results of each inspection.</p> <p>Monitor and maintain a log of ore feed and air flow rates.</p>	<p>Daily for each day of operation. The permittee shall maintain records onsite and make them available to Ecology on request.</p> <p>The permittee shall submit a semiannual summary report. The first and all subsequent summary reports shall include the dates of each excursion outside the normal operating ranges and the magnitude of each excursion. The report shall also identify exceedances of any given operating parameter six or more times in any semiannual reporting period</p>
	40CFR63.848(g)		VE	Visually inspect the exhaust stack(s) of each control device for evidence of any VE indicating abnormal operation.	3.4.d	<p>Inspect and record the results.</p> <p>Visual check (Method 9 is not required).</p>	Daily

II.3 Baked Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Anode Bake Furnaces (continued)	Conditions 3.4.a.i through 3.4.l incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR63.848(h)		VE and operating parameters	Initiate corrective action per startup, shutdown, malfunction plan within 1 hour if operating parameters outside the limits established under condition 3.4.c are measured or VE indicating abnormal operation are observed during daily inspection.	3.4.e	Per approved parametric monitoring description. See condition 3.4.c. Visual inspection. Comply with 3.4.d. Comply with 3.4.i (startup, shutdown, malfunction plan) Maintain records of all instances of failure to initiate corrective action procedures within 1 hour or to take necessary corrective actions to remedy the problem.	Per approved parametric monitoring description. See condition 3.4.c. Inspect daily Comply with 3.4.i (startup, shutdown, malfunction plan) Notify Ecology of all such instances at first opportunity during normal office hours (see condition 1.25).
	40CFR63.848(i)		Operating parameters	Remain within limits for each operating parameter such that any given limit is not exceeded six or more times in any semiannual reporting period. No more than one exceedance shall be attributed in any given 24-hr. period.	3.4.f	Per approved parametric monitoring description. See condition 3.4.c.	Comply with 3.4.c.
	40CFR63.848(j)		Green anode material	Operate and maintain a monitoring device to determine the daily weight of green anode material placed in the anode bake furnace.	3.4.g	Record weight of anodes placed in each furnace in tons.	Daily
	40CFR63.848(k)			All monitoring devices required by conditions 3.4.a.i through 3.4.h must be certified by the permittee to meet the accuracy requirements and must be calibrated in accordance with manufacturer's instructions.	3.4.h	Submit any changes to recommended accuracy requirements for review and approval.	When any changes are made to monitoring devices affecting their accuracy.

II.3 Baked Carbon (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Anode Bake Furnaces (continued)	Conditions 3.4.a.i through 3.4.l incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR63.850(c) and 40CFR 63.6(e)(3)			Implement a startup, shutdown and malfunction plan and corrective action program that satisfies 40CFR63.850(c) and is available for review by the permitting authority on request.	3.4.i		
	40CFR63.6(e)(3)(vii)			Make changes to the startup, shutdown and malfunction plan if required by the regulatory authority.	3.4.j	Complete changes	As required
	40CFR63.850(d) and 40CFR63.10(e)(3)			Submit an excess emissions and continuous monitoring system performance report, containing information specified in 40CFR63.10(e)(3)(v), if measured emissions exceed the applicable standard.	3.4.k	Submit report if necessary.	If necessary, semiannually unless quarterly reports are required as a result of excess emissions.
	40CFR63.850(e) and 40CFR63.10(b)			Maintain files of all information, reports and notifications required by 40CFR63.10(b) and 40CFR63 Subpart LL in accordance with 40CFR63.850(e).	3.4.l	Maintain files	For 5 years.

II.4 Anode Rodding

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-20. Wheelbrator shot blast baghouse 9,000 acfm	Order No. DE 98-AQI043 III.1. WAC 173-401-615(1)(b) (periodic monitoring) and -615 (3)(a) (reporting) WAC 173-400-060		PM	Must not exceed .01 grains per dscf	4.1.a.i	EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96)	Upon request by Ecology
					4.1.a.ii	Comply with condition 4.1.b.i.	Comply with condition 4.1.b.i.
	Order No. DE 98-AQI043 III.2. and III.3. WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91]		VE	Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	4.1.b.i	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation
				No visible emissions shall be present due to leakage as a result of poor O&M from the process equipment and the air emissions control unit.	4.1.b.ii	Comply with condition 1.25	Comply with condition 1.25

II.4 Anode Rodding

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-20. Wheelbrator shot blast baghouse 9,000 acfm (continued)	Order No. DE 98-AQI043 III.4.		O&M	O&M manuals for all equipment with potential to affect emissions shall be developed, followed, and available to Ecology. Emissions resulting from failure to follow manuals may be considered proof of improper operation and maintenance.	4.1.c	Comply with condition 1.25	Comply with condition 1.25

II.5 Potroom Operations

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-38. Grit Blaster Baghouse 8,900 acfm	Order No. DE 98-AQI043 VI.1.		PM	Must not exceed .01 grains per dscf,	5.1.a.i	EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96), EPA Method 301 Equivalent.	Upon Ecology's request
	WAC 173-401-615(1)(b) (periodic monitoring)				5.1.a.ii	Comply with condition 5.1.b	Comply with condition 5.1.b
	Order No. DE 98-AQI043 VI.2. WAC 173-401-615(1)(b) (periodic monitoring)		VE	Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	5.1.b	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation

II.5 Potroom Operations (continued)							
Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-38. Grit Blaster Baghouse 8,900 acfm (continued)	Order No. DE 98-AQI043 VI.3. WAC 173-401-615(1)(b) (periodic monitoring)		VE	No visible emissions shall be present due to leakage as a result of poor O&M from the process equipment and the air emissions control unit.	5.1.c	Comply with condition 1.25	Comply with condition 1.25
	Order No. DE 98-AQI043 VI.4		O&M	O&M manuals must be developed, followed, and available to Ecology. Emissions resulting from failure to follow manuals may be considered proof of improper operation and maintenance.	5.1.d	Comply with condition 1.25	Comply with condition 1.25
Combined emissions from E-60 (A-398 dry scrubber baghouses) and E-61 (potroom roof monitors)	WAC 173-415-030 (2)		PM	Must not exceed a maximum of 15 lbs of PM per ton of Al produced/month	5.2.a.i	For each operating potline, Conduct source test at the exhaust of the primary dry scrubber controls using Ecology-approved alternative Alcoa Method 4075TF/4076TF.	When all five potlines are operating, sample both stacks in at least one module of at least one primary control system each calendar month. For each operating potline, sample each primary control system at least 3 times each year. Sample each module at least once per 5 years. The schedule for testing of units shall not be announced in advance to operators or maintenance personnel responsible for production or primary system O&M.
					5.2.a.ii	Conduct source tests at the secondary roof vent monitors using EPA Method 14 and Ecology-approved alternative Alcoa Method 4075TF/4076TF or Method 301 validated method.	Three times each month at the Room 10 roof monitor. Conduct one of the three tests before the 15 th of the month, one after the 15 th , and separate two of the tests by at least 6 days. Conduct each test over a complete process cycle. Report results monthly.

II.5 Potroom Operations (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Combined emissions from E-60 (A-398 dry scrubber baghouses) and E-61 (potroom roof monitors) (continued)			PM		5.2.a.iii	<p>Using all valid test runs, calculate monthly average PM emissions for line 2, room 10, and plant-wide, using the following equation:</p> $PM = (C_1 \times Q_1 + C_2 \times Q_2) / P \times K$ <p>Where: C₁=the concentration of PM in the respective primary control system exhaust in mg/dscf; Q₁=the respective primary system effluent gas volumetric flow rate in dscf/hr; C₂=the concentration of PM as measured for the room 10 roof monitor emissions in mg/dscf; Q₂=the respective roof monitor volumetric air flow rate in dscf/hr; P=the aluminum production rate in tons/hr; and K=conversion factor of 453,600 mg/lb.</p>	Monthly

II.5 Potroom Operations (continued)							
Emission Unit	Applicable Requirement	State Only	Pollutant/Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Combined emissions from E-60 (A-398 dry scrubber baghouses) and E-61 (roof vent monitors) (continued)	WAC-173-415-030 (6) WAC 173-401-605(1) and -600(2) (gapfilling)		O&M	<p>Must maintain affected facility and operate and maintain air pollution control equipment consistent with good air pollution control practice.</p> <p>A monthly average total fluoride secondary emission rate for each potroom of no more than 2.24 lbs TF/ton of aluminum produced (3.0 lbs TF/ton during the first 180 days following restart of a potline) is sufficient demonstration of compliance for purposes of periodic monitoring and compliance certification.</p>	5.2.b	<p>Calculate the monthly average potroom secondary TF emissions using CEM data and the CEM-Method 14 correlation established in the test plan approved under condition 5.4.a.iv. If the monthly average TF secondary emission rate for a potroom is maintained at or below 2.24 lbs per ton AL produced (3 lbs/ton within 6 months after restarting a potline), no additional monitoring is required.</p> <p>If 2.24 lb/ton is exceeded once (except following restart), submit a report identifying the reason(s) for the exceedance and actions planned for reducing emissions.</p> <p>If 2.24 lbs/ton is exceeded a second time in any one potroom during a rolling 12-month period, initiate weekly inspections of the affected potline, using a checklist that incorporates, at a minimum: a) condition of hoods/shields; b) timeliness and effectiveness of needed repairs; c) necessity and duration of time the hoods are open; and d) minimization of emissions generated by work practices.</p> <p>If 2.24 lbs/ton is exceeded a third time in any one potroom during a rolling 12-month period, initiate monthly collection efficiency monitoring on that potline per condition 5.3.b.</p>	<p>Monthly, according to the MACT sampling schedule.</p> <p>Within 30 days of reporting the exceedance.</p> <p>Commence inspections within 7 days of discovery of second exceedance. Continue until there are no exceedances of 2.24 lbs/ton from the respective potline for a period of 12 consecutive months.</p> <p>Commence collection efficiency monitoring within 30 days of discovery of a third exceedance. Continue until there are no exceedances of 2.24 lbs/ton from the respective potline for a period of 12 consecutive months.</p>

II.5 Potroom Operations (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
E-60 (A-398 dry scrubber baghouses)	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91] WAC 173-401-615(1)(b) (periodic monitoring)		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60-minute period.	5.3.a	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96). Comply with condition 1.25	Upon request by Ecology Comply with condition 1.25
	WAC 173-415-030 (1)(b) WAC 173-401 (periodic monitoring)		TF	Design collection efficiency must be at least 95% and design removal efficiency must be at least 95%.	5.3.b	Conduct collection efficiency tests using Alcoa test method 4075TF/4076TF for Room 10. Conduct at least 3 test runs covering a complete operating cycle during the month of the test at the Room 10 manifold consistent with the MACT sampling schedule. At least one 2-hr inlet test run shall be conducted at the inlet to the Line 2 dry scrubber during each Room 10 manifold test. Other potrooms shall be tested according to the same schedule except that secondary emissions shall be determined by valid correlation of CEM and Method 14 data for TF, and the corresponding dry scrubbers for each potroom shall be tested. Collection efficiency is calculated as a monthly average, for each potroom, of the following, for each test run: primary scrubber inlet TF rate/(primary inlet TF rate + secondary TF emission rate)	Upon request by Ecology or as required under condition 5.2.b.

II.5 Potroom Operations (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Potlines	Conditions 5.4.a through 5.4.i incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR 63.843(a)(1)(ii), 847(d), 848(a) and (d)(1) 40CFR63.849, 850(a)(5) and (b), 40CFR 63.7(b) and (g), and WAC 173-415-060(1)		TF	Must not exceed 3.0 lbs/ton of Al produced for each potline.	5.4.a.i	For each operating potline, conduct source test at the exhaust of the primary dry scrubber controls using Ecology-approved alternative Alcoa Method 4075/TF4076TF.	When all five potlines are operating, sample both stacks in at least one module of at least one primary control system each calendar month. Each test run shall be at least 4 hr. in duration. For each operating potline, sample each primary control system at least 3 times each year. Sample each module at least once per 5 years. The schedule for testing of units shall not be announced in advance to operators or maintenance personnel responsible for production or primary system O&M.
					5.4.a.ii	Conduct source tests using EPA Method 14 and Ecology-approved alternative Alcoa Method 4075TF/4076TF or Method 301 validated method at the Room 10 secondary roof vent monitor, and using CEMs per the approved test plan for rooms 6, 14, 18 and 20.	Three times each month at the Room 10 roof monitor. Conduct one of the three tests before the 15 th of the month, one after the 15 th , and separate two of the tests by at least 6 days. Conduct each test over a complete process cycle. When potlines are operating, continuous monitoring (OPSIS) at rooms 6, 14, 18 and 20. Report results monthly.
					5.4.a.iii	Including all valid runs, compute and record the monthly average TF emission rate in lbs/ton from: 1) for line 2, at least three runs for Room 10 secondary emissions; 2) for line 1, 3, 4 and 5, the monthly average TF recorded from CEMs; and, the previous 12-month average of all runs for the primary control system to determine compliance with the limit. Use the calculation method contained in 40CFR63.848 (d)(1) and (e)(1).	Monthly. Results of monitoring shall be reported within 30 days of the end of each calendar month.

II.5 Potroom Operations (continued)							
Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Potlines (continued)	Conditions 5.4.a through 5.4.i incorporate MACT requirements published at FR52384, October 7, 1997.						
	(continued)		TF (continued)	(continued)	5.4.a.iv	Performance tests must be in accordance with the approved test plan, Subpart A of 40CFR Part 63 and 40CFR 63.847.	NA
					5.4.a.v	Notify Ecology of intention to conduct performance tests.	Submit notification at least 60 days before each test is scheduled to begin. Notify Ecology at least 5 days in advance of any delay in the planned test.
	40CFR 63.7(c)(4)(i)			Request performance audit materials	5.4.b	Request materials	45 days prior to each performance test
	40CFR63.848(f) and 40CFR63.847(h)		Parametric monitoring for control devices	<p>Operate, calibrate and maintain a continuous parameter monitoring system including, at a minimum, alumina flow and air flow.</p> <p>Daily average ore flow into each reactor shall be maintained at no less than 10 tons/day.</p> <p>Daily average air flow from the potlines shall be maintained at no less than 160,000 acfm.</p> <p>Submit for approval any proposed changes to the above parameters or operating limits.</p>	5.4.c	<p>Inspect each control device to ensure the control device is operating properly and record the results of each inspection.</p> <p>Monitor and maintain a log of ore feed and air flow rates.</p>	<p>Daily for each day of operation. The permittee shall maintain records onsite and make them available to Ecology on request.</p> <p>The permittee shall submit a semiannual summary report. The first and all subsequent summary reports shall include the dates of each excursion outside the normal operating ranges and the magnitude of each excursion. The report shall also identify exceedances of any given operating parameter six or more times in any semiannual reporting period</p>
	40CFR63.848(g)		VE	Visually inspect the exhaust stack(s) of each control device for evidence of any VE indicating abnormal operation.	5.4.d	<p>Inspect and record the results.</p> <p>Visual check (Method 9 is not required).</p>	Daily

II.5 Potroom Operations (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Potlines (continued)	Conditions 5.4.a through 5.4.i incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR63.848(h)		VE and operating parameters	Initiate corrective action per startup, shutdown, malfunction plan within 1 hour if operating parameters outside the limits established under condition 5.4.c are measured or VE indicating abnormal operation are observed during daily inspection.	5.4.e	Per approved parametric monitoring description. See condition 5.4.c. Visual inspection. Comply with 5.4.d. Comply with 5.4.j (startup, shutdown, malfunction plan) Maintain records of all instances of failure to initiate corrective action procedures within 1 hour or to take necessary corrective actions to remedy the problem.	Per approved parametric monitoring description. See condition 5.4.c. Inspect daily. Comply with 5.4.j (startup, shutdown, malfunction plan) Notify Ecology of all such instances at first opportunity during normal office hours (see condition 1.25).
	40CFR63.848(i)		Operating parameters	Remain within limits for each operating parameter such that any given limit is not exceeded six or more times in any semiannual reporting period. No more than one exceedance shall be attributed in any given 24-hr. period.	5.4.f	Per approved parametric monitoring description. See condition 5.4.c.	Comply with 5.4.c.
	40CFR63.848(j)		Aluminum produced	Operate and maintain a monitoring device to determine the daily weight of aluminum produced	5.4.g	Record tons of aluminum produced for each potline	Daily
	40CFR63.848(k)			All monitoring devices required by conditions 5.4.a.i through 5.4.a.iv and 5.4.c through 5.4.g [40CFR 63.848] must be certified by the permittee to meet the accuracy requirements and must be calibrated in accordance with manufacturer's instructions.	5.4.h	Submit any changes to recommended accuracy requirements for review and approval.	When any changes are made to monitoring devices affecting their accuracy.

II.5 Potroom Operations (continued)							
Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Frequency and Timing
Potlines (continued)	Conditions 5.4.a through 5.4.l incorporate MACT requirements published at FR52384, October 7, 1997.						
	40CFR63.850(a)(8)			Develop and submit an engineering plan describing techniques to be used to address capture efficiency of reduction cells for gaseous HAPs in compliance with limits contained in condition 5.4.a.	5.4.i	Submit if requested	Within 180 days of receiving a written request.
	40CFR63.850(c) and 40CFR 63.6(e)(3)			Implement a startup, shutdown and malfunction plan and corrective action program that satisfies 40CFR63.850(c) and is available for review by the permitting authority on request.	5.4.j		
	40CFR63.850(d) and 40CFR63.10(e)(3)			Submit an excess emissions and continuous monitoring system performance report, containing information specified in 40CFR63.10(e)(3)(v), if measured emissions exceed the applicable standard.	5.4.k	If necessary	If necessary, semiannually unless quarterly reports are required as a result of excess emissions
	40CFR63.850(e) and 40CFR63.10(b)			Maintain files of all information, reports and notifications required by 40CFR63.10(b) and 40CFR63 Subpart LL in accordance with 40CFR63.850(e).	5.4.l	Maintain files	For 5 years

II.6 Metal Products							
Emission Unit	Applicable Requirement	State Only	Pollutant/Parameter	Description of Requirement	Condition Number	Monitoring	Monitoring Frequency and Timing
E-67 Furnace #6	Order No. DE 98-AQI043 II. 1. A.		Nox	≤ 83 ppm dry basis, corrected to 20% oxygen	6.1.a	Calculated, based on 0.02 lbs. CO, a single month's operating time and gas consumption, and a flow rate of 4,889 dscfm, corrected to 20% oxygen.	Annually
	Order No. DE 98-AQI043 II. 1. B.		CO	≤ 100 ppm dry basis, corrected to 20% oxygen	6.1.b	Calculated, based on 0.1 lbs. Nox, a single month's operating time and gas consumption, and a flow rate of 4,889 dscfm, corrected to 20% oxygen.	Annually
	Order No. DE 98-AQI043 II. 1. C. and 3.		VE	Opacity must not exceed an average of 5%	6.1.c.i	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96).	Upon request by Ecology
				Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	6.1.c.ii	Comply with condition 6.1.c.iii	Comply with condition 6.1.c.iii
					6.1.c.iii	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation
	Order No. DE 98-AQI043 II. 2. WAC 173-401-605(1) and -600(2) (gapfilling)		VE	No visible emissions shall be present due to leakage as a result of poor O&M from the process equipment	6.1.d	Comply with condition 1.25	Comply with condition 1.25

II.6 Metal Products (continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Monitoring Frequency and Timing
E-67 Furnace #6 (continued)	Order No. DE 98-AQI043 II. 4. WAC 173-401-605(1) and -600(2) (gapfilling)		O&M Manuals	An operation and maintenance manual for the furnace shall be developed and followed. The manual shall be available to the Department. Emissions that result from a failure to follow the requirements of the manual may be considered proof that the equipment was not properly operated and maintained.	6.1.e	Comply with condition 1.25	Comply with condition 1.25
E-62,63,64,65,66 Furnaces # 1,2,3,4 and 5	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91] WAC 173-401-605(1) and -600(2) (gapfilling) WAC 173-401-615(1)(b) (periodic monitoring)		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60 minute period.	6.2.a.i	Visual checks (Method 9 is not required) for VE shall be made, and if no VE is observed, this condition shall be recorded. If VE are present, the permittee shall immediately determine opacity in accordance with condition 6.2.a.ii and take appropriate action to determine the cause and correct the problem as soon as practicable.	Weekly; if no VE are observed during 10 consecutive weekly observations, required frequency is reduced to monthly. If VE are observed, weekly observations shall resume. If corrective actions are not completed within 24 hours of VE observation, notify Ecology at first opportunity during normal office hours.
					6.2.a.ii	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96).	As soon as possible after observing VE under condition 6.2.a.

II.7 Ancillary Operations

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Monitoring Frequency and Timing
E-9 Alumina D-2 Belt Baghouse 9,500 cfm	Order No. DE 98-AQI043 IV.1.		PM	Must not exceed 0.01	7.1.a.i	EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96)	Upon request by Ecology
					7.1.a.ii	Comply with condition 7.1.b	Comply with condition 7.1.b
	Order No. DE 98-AQI043 IV.2. and 3.		VE	Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	7.1.b	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation
				No visible emissions shall be present due to leakage as a result of poor O&M from the process equipment	7.1.c	Comply with condition 1.25	Comply with condition 1.25

II.7 Ancillary Operations (Continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Monitoring Frequency and Timing
E-16 Building 36A Baghouse (scrap ore screening operation) 24,000 cfm	Order No. DE 98-AQI043 X.1.		PM	Must not exceed 0.005 grains/dscf	7.2.a.i	One test of at least four hours duration, using EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96)	Every two years
	WAC 173-401-615(1)(b) (periodic monitoring)				7.2.a.ii	Comply with condition 7.2.c.	Comply with condition 7.2.c.
	Order No. DE 98-AQI043 X. 2.		VE	Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	7.2.b	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation

II.7 Ancillary Operations (Continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Monitoring Frequency and Timing
E-16-2 Building 36A	Order No. DE 98-AQI043 X.3. WAC 173-401-605(1) and -600(2) (gapfilling)		VE	Emissions from the building caused by materials handling, vehicular traffic, etc. shall not exceed an average of twenty percent opacity for more than six consecutive minutes in any one-hour period.	7.3.a	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96), determined at the curtain wall during representative operation.	Every six months. Records shall be kept for no less than five years and shall be available to Ecology.
	Order No. DE 98-AQI043 X.4.		Dust	Use reasonable precautions to minimize dust generation inside the building. Define "reasonable precautions" in SOPs consistent with good air pollution control practice. Failure to identify, develop and follow these SOPs will subject the permittee to enforcement action.	7.3.b	SOPs shall be made available to Ecology inspectors.	Upon request by Ecology

II.7 Ancillary Operations (Continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Monitoring Frequency and Timing
E-17 Bath Crusher Baghouse 12,000 cfm	Order No. DE 98-AQI043 VII.1.		PM	Must not exceed 0.01 grains/dscf.	7.4.a7.4.a.i	EPA Test Method 5 or 17 (40 CFR Part 60, Appendix A, 7/1/96)	Upon request by Ecology
					7.4.a.ii	Comply with condition 1.25.	Comply with condition 1.25.
	Order No. DE 98-AQI043 VII.2. and 3.		VE	Visible emissions from the stack are cause for taking corrective action. Vanalco shall fix the problem(s) as soon as practicable. In the monthly air compliance report, Vanalco shall provide a written explanation describing (1) when the visible emissions occurred, (2) what corrective action has been taken, (3) when the problem(s) were corrected, and (4) the cause of the visible emissions.	7.4.b	Operators shall check the stack for visible emissions. A written record of these daily checks shall be kept.	Daily for each day of operation
				No visible emissions shall be present due to leakage as a result of poor O&M from the process equipment and the air emissions control unit.	7.4.c	Comply with condition 1.25.	Comply with condition 1.25.
	Order No. DE 98-AQI043 VII.4.		O&M	O&M manuals for all equipment with potential to affect emissions shall be developed, followed, and available to Ecology. Emissions resulting from failure to follow manuals may be considered proof of improper operation and maintenance.	7.4.d	Comply with condition 1.25.	Comply with condition 1.25.

II.7 Ancillary Operations (Continued)

Emission Unit	Applicable Requirement	State Only	Pollutant/ Parameter	Description of Requirement	Condition Number	Monitoring	Monitoring Frequency and Timing
E-86, E-87 Boilerhouse Stacks	WAC 173-415-030 (3) [approved into the SIP on 2/19/91; state rule effective 3/22/91]		VE	Must not exceed an avg 20% opacity for more than six consecutive minutes in any 60 minute period.	7.5.a7.5.a.i	Visual observations for VE shall be made and recorded (Method 9 is not required). If VE are observed, the permittee shall determine opacity in accordance with condition 7.5.a.ii and take appropriate action to determine the cause and correct the problem as soon as practicable.	Weekly; if no VE are observed during 10 consecutive weekly observations, required frequency is reduced to monthly. If VE are observed, weekly observations shall resume. If corrective actions are not completed within 24 hours of VE observation, notify Ecology at first opportunity during normal office hours.
					7.5.a.ii	EPA Method 9 (40 CFR Part 60, Appendix A, 7/1/96).	As soon as possible after observing VE under condition7.5.a.

III. STANDARD TERMS AND CONDITIONS OF THE PERMIT

III.1 Duty to comply - WAC 173-401-620(2)(a)

The permittee must comply with all conditions of this chapter 401 permit. Any permit noncompliance constitutes a violation of chapter 70.94 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

III.2 Need to halt or reduce activity not a defense - WAC 173-401-620(2)(b)

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.”

III.3 Permit actions - WAC 173-401-620(2)(c)

“This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.”

III.4 Property Rights - WAC 173-401-620(2)(d)

“This permit does not convey any property rights of any sort, or any exclusive privilege.”

III.5 Duty to Provide Information - WAC 173-401-620(2)(e)

“The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA Administrator along with a claim of confidentiality. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70.94.205.”

III.6 Permit fees - WAC 173-401-620(2)(f)

“The permittee shall pay fees as a condition of this permit in accordance with Ecology’s fee schedule. Failure to pay fees in a timely fashion shall subject the permittee to civil and criminal penalties as prescribed in chapter 70.94 RCW”

III.7 Emissions Trading - WAC 173-401-620(2)(g)

“No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.”

III.8 Severability Clause - WAC 401-620(2)(h)

“If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable.”

III.9 Permit appeals - WAC 173-401-620(2)(i)

“The permittee may appeal this permit or any conditions in it only by filing an appeal with the pollution control hearings board and serving it on the permitting authority within thirty days of receipt pursuant to RCW 43.21B.310. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under § 505(b) of the FCAA.”

III.10 Permit Continuation - WAC 173-401-620(2)(j)

“This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted.

IV. GENERAL TERMS AND CONDITIONS OF THE PERMIT:

IV.1 Recordkeeping Terms & Conditions

IV.1.a Monitoring Records - WAC 173-401-615(2)(a) and WAC 173-400-105

The permittee shall keep records of any periodic and continuous monitoring required by this permit. These records shall include the following, where applicable:

- (i) The date, place as defined in the permit, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii) The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used;
- (v) The results of such analyses; and
- (vi) The operating conditions existing at the time of sampling or measurement;

IV.1.b Inspection Checklists – WAC 173-400-105, WAC 173-401-615(1)(b), WAC 173-401-605(1) and WAC 173-401-600(2)

Where the permittee is required to conduct an inspection, the checklist must contain, at a minimum, the following information:

- (i) The person conducting the inspection; or identification of any automated system used
- (ii) The date/time of the inspection
- (iii) Location of the inspection
- (iii) The observations made during the inspection
- (iv) Corrective actions taken if any

IV.1.c Changes at Source - WAC 173-401-615(2)(b)

The permittee shall keep records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

IV.1.d Records Retention - WAC 173-401-615(2)(c)

The permittee shall retain records of all required monitoring data and support information for a period of 5 years from the date of monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all data from continuous monitoring instrumentation, and copies of all reports required by this permit.

IV.1.e Recording of Permit Deviations - WAC 173-401-615(3)(b)

The source shall maintain a contemporaneous record of all deviations such as the date and nature of the deviation.

IV.2 Reporting Terms & Conditions

IV.2.a Certifications - WAC 173-401-520

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Where the permit requires reporting more frequently than once every 3 months the responsible official's certification need only be submitted once every 3 months covering all required reporting since the date of the last certification.

IV.2.b Monthly Reports - WAC 173-401-615(3)(a)

Results of monitoring shall be reported within 30 days of the last calendar day of each month. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with WAC 173-401-520 and condition IV.2.a.

IV.2.c Permit Deviations/Excess Emissions - WAC 173-401-615(3)(b) and WAC 173-400-107

The permittee shall promptly submit a report of any deviations from permit conditions.

- (a) For purposes of this permit, submitting a report "promptly" means the following: (a) if the deviation presents a potential threat to human health or safety, the report shall be made as soon as possible but no later than 12 hours after the discovery of the deviation; (b) for other deviations, unless specified otherwise in this permit, "promptly" means that the deviations are identified in the respective monthly report.
- (b) Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. The permittee may include in its reports demonstrations that excess emissions were unavoidable, consistent with the requirements of WAC 173-400-107.

IV.2.d Duty to Supplement or Correct Applications - WAC 173-401-500(6)

In the event the permittee fails to submit any relevant facts or has submitted incorrect information in the permit application, the permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

IV.2.e Providing additional data - WAC 173-415-060(2)

For Ecology to evaluate a plant's emissions or emission control program, the permittee shall furnish other data requested by Ecology.

IV.2.f Emission Inventory - WAC 173-415-080 and WAC 173-400-105(1)

The permittee shall submit an inventory of emissions, as specified by Ecology, from the source each year no later than 105 days after the end of the calendar year. The permittee shall maintain records of information necessary to substantiate any reported emissions.

IV.2.g Compliance Requirements - WAC 173-401-510(2)(h)(iii), -630(3), and -630 (5)

- (1) The permittee shall continue to comply with applicable requirements with which the permittee is in compliance.
- (2) The permittee shall meet applicable requirements that become effective during the permit term on a timely basis.
- (3) The permittee shall submit a report to the Department of Ecology and to EPA Region 10 within 105 days after the close of the calendar year, and every year thereafter, certifying compliance with the terms and conditions contained in this permit for the previous calendar year. The initial compliance certification shall cover the period from when the permit is effective to the end of the calendar year. The certification shall describe the following:
 - (a) the permit term or condition that is the basis of the certification;
 - (b) the compliance status;
 - (c) whether compliance was continuous or intermittent; and
 - (d) the methods used for determining compliance.
- (4) The permittee is not required to certify compliance for insignificant emission units or activities. [WAC 173-401-530(2)(d)]

IV.2.h Report Address

All reports, renewal applications, and compliance certifications required by this permit shall be submitted to:

Department of Ecology
Industrial Section
P.O. Box 47706
Olympia, WA 98504-7706

Washington State Department of Ecology Southwest Regional Office 24-hour Phone Number (360)-407-6300

FAX number for the Washington State Department of Ecology's Industrial Section reception (360) 407-6902

Compliance certification shall also be submitted to:

Environmental Protection Agency
Air Operating Permits, Region 10
1200 Sixth Avenue, OAQ-108
Seattle, WA 98101-1128

IV.3 Other Terms & Conditions of the Permit

IV.3.a Excess Emissions Due to an Emergency - WAC 173-401-645

“(1) Definition. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission

limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(2) Effect of an emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of subsection (3) of this section are met.

(3) Criteria. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) The permitted facility was at the time being properly operated;
- (c) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (d) The permittee submitted notice of the emergency to the permitting authority within two working days of the time when emission limitations were exceeded due to the emergency or shorter periods of time specified in an applicable requirement. This notice fulfills the requirement of WAC 173-401-615 (3)(b) unless the excess emissions represent a potential threat to human health or safety. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(4) Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(5) Relationship to other rules. This provision is in addition to any emergency or upset provision contained in any applicable requirement.”

IV.3.b Reasonably Available Control Technology (RACT) - WAC 173-400-040 and WAC 173-401-605(3)

Emission Standards and other requirements contained in rules or regulatory orders in effect at the time of operating permit issuance or renewal shall be considered RACT for the purposes of permit issuance or renewal. RACT determinations under section 8, chapter 252, Laws of 1993, shall be incorporated into an operating permit as provided in WAC 173-401-730.

IV.3.c Asbestos - WAC 173-400-075

“The permittee shall comply with 40 CFR Part 61, subpart M (asbestos NESHAP) and WAC 173-400-075 when conducting any renovation or demolition at the facility.”

IV.3.d Concealment and Masking - WAC 173-400-040(7)

The permittee shall not install or use any means that conceal or mask an emission of an air contaminant that would otherwise violate provisions in this permit.

IV.3.e Prohibition of false statements, representation, or certification or rendering inaccurate monitoring device or method - WAC 173-400-105 (7) and (8)

“No person shall make any false material statement, representation or certification in any form, notice or report required under chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit or order in force pursuant thereto. No person shall render inaccurate any monitoring device or method required under chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.”

IV.3.f Federally Enforceable Requirements - WAC 173-401-625

“(1) Federal enforceability. All terms and conditions in a chapter 401 permit, including any provisions designed to limit a source's potential to emit, are enforceable by the EPA administrator and citizens under the FCAA.

(2) Exceptions. Notwithstanding subsection (1) of this section, the permitting authority shall specifically designate as not being federally enforceable under the FCAA any terms and conditions included in the permit that are not

required under the FCAA or under any of its applicable requirements. Terms and conditions so designated are not subject to the EPA and affected states review requirements of WAC 173-401-700 through 173-401-820.”

IV.3.g Inspection and Entry - WAC 173-401-630(2)

“Inspection and entry. The permittee shall allow the permitting authority or an authorized representative to perform the following upon presentation of credentials and other documents as may be required by law::

- (a) Enter upon the permittee's premises where a chapter 401 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (d) As authorized by WAC 173-400-105 and the FCAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.”

IV.3.h Exclusions - WAC 173-401-640(4)

“Nothing in this section or in any chapter 401 permit shall alter or affect the following:

- (a) The provisions of section 303 of the FCAA (emergency orders), including the authority of the administrator under that section;
- (b) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- (c) The applicable requirements of the acid rain program, consistent with section 408(a) of the FCAA;
- (d) The ability of EPA to obtain information from a source pursuant to section 114 of the FCAA; or
- (e) The ability of the permitting authority to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in chapter 252, Laws of 1993.”

IV.3.i Application and Issuance of a Renewal Permit - WAC 173-401-710(1)&(2)

The permittee shall submit a complete permit renewal application to Ecology no later than six months prior to the expiration date of the existing permit. Permits being renewed are subject to the same procedural requirements, including those for public participation, affected state and EPA review, that apply to the initial permit.

IV.3.j Expired Permits - WAC 173-401-710(3)

The permittee’s right to operate is terminated if the permit expires and the source has not submitted a timely and complete permit renewal application consistent with WAC 173-401-500 and -710(1). The permittee is subject to all the terms and conditions of the initial permit until the renewal permit becomes effective if a timely and complete renewal application is submitted to Ecology.

IV.3.k Transfer of Ownership or Operation - WAC 173-401-720(1)(d)

“An "administrative permit amendment" is a permit revision that allows for a change in ownership or operational control of a source where the permitting authority determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the permitting authority”

IV.3.l Reopening for Cause - WAC 173-401-730

(1) "Each issued permit shall be reopened and revised under any of the following circumstances:

- (a) Additional applicable requirements become applicable to a major chapter 401 source with a remaining permit term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620 (2)(j);
 - (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit;
 - (c) The permitting authority or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - (d) The administrator or the permitting authority determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (2) Procedures. Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.
- (3) Notice. Reopening under this section shall not be initiated before a notice of such intent is provided to the chapter 401 source by the permitting authority at least thirty days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency."

IV.3.m "Causing or Permitting Air Pollution Unlawful- Exception - RCW 70.94.040 (State-only requirement)

Except where specified in a variance permit, as provided in RCW 70.94.181, it shall be unlawful for any person to cause air pollution or permit it to be caused in violation of this chapter, or of any ordinance, resolution, rule or regulation validly promulgated." (This is a state-only requirement)

IV.3.n Risk Management Programs - 40 CFR Part 68

"The permittee shall comply with the following requirements not later than June 20, 1999:

- a) Determine rule applicability and program eligibility requirements in accordance with the procedures described in 40 CFR 68.10 and 68.115.
- b) Submit a certification statement to Ecology that the Permittee is in compliance with all the applicable requirements of 40 CFR Part 68, including registration (40 CFR 60.160) and submission of the risk management plan (40 CFR 68.150 to 68.185)."

IV.3.o Stratospheric Ozone Protection - 40 CFR Section 82 and RCW 70.94.970 (the RCW is a state-only requirement)

- a) "The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditions (MVACs) in Subpart B:
 - 1. Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to § 82.156.
 - 2. Equipment used during the maintenance, service, repair or disposal must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - 3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to § 82.161.
 - 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to § 82.166 ("MVAC-like appliance" is defined at § 82.152.)
 - 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant purchased and added to such appliances pursuant to § 82.166.”
- b) Permittee may switch from any ozone-depleting substance to any alternative approved pursuant to the Significant New Alternatives Program (SANP), 40 CFR Part 82, Subpart G, without a permit revision but shall not switch to a substitute listed as unacceptable pursuant to such program. [40 CFR 82.174]
 - c) Any certified technician employed by Permittee shall keep a copy of their certification at their place of employment. [40 CFR 82.166(1)]
 - d) The Permittee shall not willfully release any regulated refrigerant and shall use refrigerant extraction equipment to recover regulated refrigerant that would otherwise be released into the atmosphere. [RCW 70.94.970(2), 970(4)] State Only
 - e) Compliance with this term and condition will be demonstrated by using a certified contractor or employee.

V. PERMIT SHIELD/ INAPPLICABLE REQUIREMENTS

Pursuant to WAC 173-401-640(1), compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements identified in this permit, as of the date of permit issuance. This permit shield does not exempt the permittee from requirements enacted after the permit issuance date.

Pursuant to WAC 173-401-640(2), the Department of Ecology has determined that the requirements listed below do not apply to the facility, as of the date of permit issuance, for the reasons specified.

The permit shield shall apply to the inapplicable requirements listed in the table below.

INAPPLICABLE REQUIREMENTS	
Regulatory Citation	Reason for Inapplicability
Federal Clean Air Act and Amendments (FCAA) Section 183(e), Standards for VOC-emitting products	No applicable regulations have been issued to date
FCAA Section 183(f), Tank vessel standards	Apply only to loading and unloading of marine vessels carrying petroleum products
FCAA Section 328, Emissions guidelines for primary aluminum plants	Ecology has not submitted relevant regulations under Section 111(d); guideline is not enforceable until state adopts guideline as a performance standard
FCAA Title IV, Acid deposition control	Applies only to large coal-fired power plants and industrial sources that volunteer to participate
40 CFR Part 50, Regulations on primary and secondary national ambient air quality standards	Per 57 FR 32276, 7/21/92, national ambient air quality standards and visibility requirements are applicable requirements only for temporary sources
RCW 70.94.610, Burning used oil fuel in land-based facilities	Applicant burns no used oil
RCW 70.94.650, Burning permits for weed abatement, fire fighting instruction, etc.	Applicant performs no open burning
RCW 70.94.743, Outdoor burning – areas where prohibited	Applicant performs no open burning
RCW 70.94.775, Outdoor burning – fires prohibited – exceptions	Applicant performs no open burning
WAC 173-400-050(2), Emission standards for incinerators	Applicant has no incinerators
WAC 173-400-070, Emission standards for various source categories	Applicant's facility contains none of these source categories
WAC 173-400-100, Registration	Registration not required for operating permit program sources
WAC 173-400105(5), Continuous monitoring and reporting	Applicant's facility contains none of these source categories
WAC 173-400-115, New source performance standards	Excluded from SIP by EPA, and less inclusive than current EPA version of NSPS
WAC 173-400-151, Retrofit standards for visibility protection	Applicable if triggered
WAC 173-400-210, Emissions requirements of prior jurisdiction	Applicant's facility was never regulated by local air authority
WAC 173-415-070, Primary aluminum plants – report of startup, shutdown, breakdown or upset conditions	THIS WAC MAY CONTAIN AN OBSOLETE REFERENCE.
WAC 173-422, Motor vehicle emission inspection	Applicant is not located in area covered by SIP approved version of this regulation; current version of regulation is not SIP approved and was not issued under authority of RCW 70.94.
WAC 173-425, Open burning	Applicant performs no open burning
WAC 173-430, Agricultural burning	Applicant performs no agricultural burning
WAC 173-433, Solid fuel burning devices	Applicant burns no solid fuel
WAC 173-434, Solid waste incineration facility	Applicant does not have solid waste incinerator
WAC 173-470, Ambient air quality standards for PM	Contains no source-specific requirements
WAC 173-474, Ambient air quality standards for SO ₂	Contains no source-specific requirements
WAC 173-475, Ambient air quality standards for O ₃ , CO, NO _x	Contains no source-specific requirements
WAC 173-480, Ambient air quality standards for radionuclides	No radionuclides known to be emitted
WAC 173-490 (except -090), Emission standards and controls for sources emitting VOCs	Applicant's facility contains none of the source categories listed in this regulation
WAC 463-29, EFSEC general regulations for air pollution sources	EFSEC has no jurisdiction over aluminum smelters
Order DE 97-AQI016, Dry coke scrubber	Replaced by Consolidated Order DE 98-AQI043
Order DE 97-AQI015, Holding furnace #6 Replacement	Replaced by Consolidated Order DE 98-AQI043

INAPPLICABLE REQUIREMENTS	
Regulatory Citation	Reason for Inapplicability
Order DE 96-AQI004, Additional rodding Room shot blast baghouse	Replaced by Consolidated Order DE 98-AQI043
Order DE 93-AQI086, Alumina Systems Belt D-2 Baghouse	Replaced by Consolidated Order DE 98-AQI043
Order DE 92-AQI059, Low current density project	Replaced by Consolidated Order DE 98-AQI043
Order DE 92-AQI055, Grit blast booth and baghouse	Replaced by Consolidated Order DE 98-AQI043
Order DE 92-AQI054, Bath crusher replacement	Replaced by Consolidated Order DE 98-AQI043
Order DE 92-AQI047, Carbon baking furnace #3 packing material baghouse	Replaced by Consolidated Order DE 98-AQI043
Order DE 91-AQI036, Monitoring plan revision/update	Replaced by Consolidated Order DE 98-AQI043
Order DE 89-AQI134, Building 36A ore screening operation and baghouse	Replaced by Consolidated Order DE 98-AQI043

VI. GLOSSARY

acfm	atmospheric cubic feet per minute
avg	average
BACT	best available control technology
BTU	British thermal unit
CEM	continuous emission monitor
CO	carbon monoxide
DOE	Department of Ecology
dscf	dry standard cubic foot
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
gpm	gallons per minute
gt&c	general terms and conditions
g/m ³	grams per cubic meter
gr	grain
HAP	hazardous air pollutant
IEU	insignificant emission unit
kg	kilogram
lbs	pounds
MACT	maximum available control technology
µg/m ³	micrograms per cubic meter
MMBTU	million British thermal units
NO _x	nitrogen oxides
NSPS	new source performance standards
O&M	operation and maintenance
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns in diameter
POM	polycyclic organic matter
ppm	parts per million
ppmdv	part per million dry volume
PSD	prevention of significant deterioration
RCW	Revised Code of Washington
RACT	reasonable available control technology
SERP	source emission reduction plan
SIP	state implementation plan
SO ₂	sulfur dioxide
SOP	standard operating procedure
tpy	tons per year
U.S.C.	United States Code
VOC	volatile organic compound
VE	visible emissions
WAC	Washington Administrative Code